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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,453	07/27/2001	David J. Green	0325.00487	8728
21363	7590	09/13/2004	EXAMINER	
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24840 HARPER			ART UNIT	
ST. CLAIR SHORES, MI 48080			PAPER NUMBER	

2172

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/916,453	<b>Applicant(s)</b> GREEN ET AL.	
	<b>Examiner</b> Fred I. Ehichioya	<b>Art Unit</b> 2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicants' arguments, with respect to claims 1 – 20 filed May 24, 2004 have been fully considered but they are not persuasive for the following reasons.

2. Applicant argues:

- (a). Schmitz and Freeman, alone or in combination, do not teach or suggest “a step of storing at least one of a plurality of parameters, that defines a program for a programmable logic device, in a non-programming field of a file suitable for programming the programmable logic device” (Page 10, paragraph 2).
- (b). “the requirement under MPEP §2124 for motivation has not been fulfilled and thus prima facie obviousness has not been established (page 11, paragraph 2).
- (c). Due to a lack of evidence to the contrary, the U.S. Patent and Trademark Office classification appear to show that references are non-analogous art and thus the proposed combination is not obvious (page 12, paragraph 1).
- (d). Freeman does not appear to mention (a) a parameter that defines a program for a programmable logic device, (b) a non-programming field in a file or (c) a file suitable for programming the programmable logic device. Furthermore, the Office Action does not clearly identify (i) a second non-programming field within a file suitable for programming a programmable logic device and (ii) a parameter other than the error checking signal of Freeman (page 14, paragraph 1).

- (e). Nowhere in the above text, or in any other section, does Freeman appear to discuss bracketing non-programming fields (page 17, paragraph 2).
- (f). Schmitz, Freeman and Shultz, alone or in combination, do not teach or suggest a frequency parameter stored in a second non-programming field of a file suitable for programming a programmable logic device (page 20, paragraph 2).
- (g). Applicants' representative traversed the assertions in the September 15, 2003 Office Action regarding the teachings of Schmitz relative to claims 9 and 19, Schultz relative to claims 4 and 14 and the lack of evidence for structure in claim 20 (page 21, paragraph 2).

Regarding argument (a), it is respectfully noted that Applicant's arguments appear incommensurate in scope with the limitations of representative claims. In particular, the examiner does not see "a step for storing at least one of a plurality of parameters, that defines a program for a programmable logic device, in a non-programming field of a file suitable for programming the programmable logic device".

It is noted that as disclosed by Freeman in column 6, lines 44 - 67, "writing an error checking signal to a unique storage location in a group of  $N \times M$  storage locations for each one of a set of the  $M \times N$  possible pairs to said first and second data field values where said group of storage locations is divided into  $M$  first data field sets of storage locations ..." and in column 7, lines 23 - 32, "a first non-programmable matrix decoder, having row and column inputs for receiving first and second fields respectively and an output for transmitting an unmasked error checking signal selected by said first

and second fields received at said inputs, ....” can be fairly interpreted as a “storing at least one of said parameters in a non-programmable field of said file”.

There is nothing in the claimed limitations, which preclude the examiner from this interpretation.

Regarding argument (b), Examiner respectfully disagrees with the applicants. MPEP §2124 requires “Exception to the rule that the critical reference date must precede the filing date” and does not have anything to do with “suggestion or motivation to modify the references”.

There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teaching of the prior art, and the knowledge of persons of ordinary skill in the art. MPEP §2143.01. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 –58. Regarding page 5, of the last Office Action, the motivation fairly suggest the benefits of the invention of Freeman – “error checking signal” is used to check if configuration or protocol is changed so that the system can facilitate the reprogramming to compensate for the change (see Abstract).

Regarding argument (c), Examiner respectfully disagrees with the applicants. Schmitz discloses “apparatus and method for allocation of resources in programmable logic devices” (Title) and Freeman discloses “programmable error-checking matrix for digital communication system” (Title). Though these inventions are in different classifications, they are reasonably pertinent to the particular problem with which the applicants’ were concerned (*In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir.1992)).

Regarding argument (d), Examiner disagrees with the applicants. Microsoft computer dictionary, fifth edition defines "parameter" as a value that is given to variable. Refer to response to argument (a). It is noted that as disclosed by Schmitz in column 1, lines 56 – 67 and column 6, lines 20 - 22, "The user supplies a circuit description 12 to logic design software executing .... JEDEC file 13 to program logic device 15 to perform the logic function in circuit description 12" can be fairly interpreted as a "generating a programming item from a plurality of parameters that define a program for a programmable logic device". Pointers, links and information stored in a computer files are in this case parameters. Again applicant's arguments appear incommensurate in scope with the limitations of representative claims. In particular, the examiner does not see "a second non-programming field within a file suitable for programming a programmable logic device".

Regarding argument (e), As discussed regarding claims 9 and 19, Schmitz discloses bracketing non-programmable field as shown in Fig.26 and column 18, lines 26 – 31 and column 30, lines 9 – 13, "Examples of each record type are given with the syntax for that record. Brackets and ellipses ("[. . .]")".

Regarding argument (f), Examiner disagrees with the applicants. Microsoft computer dictionary, fifth edition defines "frequency" as the measure of how often a periodic event occurs, such as a signal going through a complete cycle. Freeman discloses a second non-programmable field as shown in column 7, lines 23 – 36. Schultz discloses storing frequency parameter as shown in column 21, lines 2 – 6. The combination of Schultze with Freeman and Schmitz fairly suggest said second storing

comprises storing a frequency parameter in said second non-programming field. The motivation is that clock frequency stored by configuration option register, determines the order of bit streams, which is important in the effective operation of the programmable logic device.

Regarding argument (g), Examiner respectfully disagrees with the applicants that the last Office is incomplete. Claims 4, 9, 14 and 19 has been addressed in the last Office and also herewith in the response to argument (e) and (f).

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of Co-pending application No. 09/992,652. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are substantially similar in scope and they use the same limitations, using varying terminology.

The difference between claim 1 of '652 application and instant claim is that claim 1 does not recite the term "storing at least one of said parameters in a non-programming field of said file".

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to exclude the term "storing at least one of said parameters in a non-programming field of said file" because the person would have realized that the remaining elements would have performed the same functions as before. "Omission of element and its function in combination is obvious expedient if the remaining elements perform same functions as before." See *In re Karlson* (CCPA) 136 USPQ 184, decide Jan 16, 1963, Appl. No. 6857, U.S. Court of Customs and Patent Appeals.

4. In view of the above, the examiner contends that all limitations as recited in the claims have been addressed in this Office Action. For the above reasons, Examiner believed that rejection of the last Office action was proper.



***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 5, 8 – 11, 15, and 18 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,128,871 issued to Nicholas A. Schmitz (hereinafter "Schmitz") in view of U.S. Patent 5,396,505 issued to Jon C. Freeman et al (hereinafter "Freeman").

Regarding claim 1, Schmitz teaches a method of generating a file suitable for programming a programmable logic device, the method comprising the steps of:

(A) generating a programming item from a plurality of parameters that define a program for said programmable logic device (column 1, lines 56 – 67 and column 6, lines 20 – 22);

(B) storing said programming item in a programming field of said file in response to generating (column 6, lines 8 – 24); and

Schmitz does not explicitly disclose non-programming field.

Freeman discloses (C) storing at least one of said parameters in a non-programming field of said file (column 6, lines 44 – 67 and column 7, lines 23 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Freeman with the teaching of Schmitz wherein writing error checking signal are the parameters stored in non-programmable field. The motivation is that the error checking signal is used to check whether the data fields generated during a particular communication are allowed or forbidden by a communication protocol.

Regarding claims 5 and 15, Freeman teaches the steps of:

Generating an error detection item (column 1, lines 48 – 54; Freeman discloses error checking signal as “error detection item”); and

storing said error detection item in a second non-programming field of said file (column 6, lines 44 – 57 and column 7, lines 23 - 32).

Regarding claims 8 and 18, Schmitz teaches the step of storing an identification item configured to identify said programmable logic device in a second on-programming field of said file (column 2, lines 44 – 57).

Regarding claims 9 and 19, Schmitz teaches the step of bracketing said non-programming field with a pair of delimiters (Fig.26; column 18, lines 26 – 31 and column 30, lines 9 – 13).

Regarding claim 10, Schmitz teaches bracketing (column 30, lines 9 – 13)

Schmitz does not explicitly teach non-programmable field.

Freeman teaches generating an error detection item (column 1, lines 48 – 54; Freeman discloses error checking signal as “error detection item”);

storing said error detection item is a second non-programming field of said file (column 6, lines 44 – 57);

storing another of said parameters in a third non-programming field of said file (column 7, line23 – 25 and column 8, lines 22 - 25);

storing an identification item in a fourth non-programming field of said file (Fig.3; column 3, lines 30 – 44 and column 5, lines 5 – 8; “M” rows represents the number of data fields); and

bracketing a combination of said non-programming field, said second non-programming field, said third non-programming field, and said fourth non-programming field with a pair of delimiters (column 3, lines 42 - 46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Freeman with the teaching of Schmitz wherein bracketing combines the entries of second, third, and fourth of non-programmable fields. The motivation is that the bracketing specifies the required fields for processing.

Claim 11 is essentially the same as claim 1, except that it sets forth the claim invention as a storage medium for use in a computer to generate a file rather than a method of generating a file and therefore rejected for the same reason as applied herein above.

Claim 20 is essentially the same as claim 1, except that it sets forth the claim invention as a system rather than a method of generating a file and therefore rejected for the same reason as applied herein above.

7. Claims 2, 3, 4, 6, 7, 12, 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz in view of Freeman and further in view of U.S. Patent 6,255,848 issued to David P. Schultz et al (hereinafter "Schultz").

Regarding claims 2 and 12, Schmitz and Freeman disclose the claimed subject matter as discussed in claims 1 and 11 respectively. Freeman discloses a non-

programmable field (column 7, lines 23 – 32). Schmitz or Freeman does not explicitly teach storing a frequency parameter.

However, Schultz teaches storing is storing a frequency parameter in said non-programming field (see column 20, lines 36 – 67 and column 21, lines 1 – 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Schultz with the teaching of Schmitz and Freeman wherein control parameters and clock frequency are stored in several data structures in the main memory. The clock frequency is the frequency parameter. The motivation is that clock frequency determines the order of bit streams, which is very important in the effective operation of the programmable logic device.

Regarding claims 3 and 13, Freeman teaches the step of second storing one of said parameters in a second non-programming field of said file (column 7, lines 23 – 32)

Regarding claims 4 and 14, Schmitz and Freeman disclose the claimed subject matter as discussed in claims 3 and 13 respectively. Freeman discloses a second non-programmable field (column 7, lines 23 – 36). Schmitz or Freeman does not explicitly teach storing a frequency parameter.

However, Schultz teaches said second storing is storing a frequency parameter in said second non-programming field (see column 21, lines 2 - 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Schultz with the teaching of Schmitz

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and Freeman wherein control parameters and clock frequency are stored in several data structures in the main memory. The clock frequency is the frequency parameter. The motivation is that clock frequency determines the order of bit streams, which is very important in the effective operation of the programmable logic device.

Regarding claims 6 and 16, Schultz teaches error detection item is a cyclic redundancy check checksum (see column 3, lines 31 – 40 and column 14, lines 11 – 16).

Regarding claims 7 and 17, Schultz teaches cyclic redundancy check checksum is configured to detect a bit swap within said file (see column 14, lines 29 – 38).

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 703-305-8039. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya  
Examiner  
Art Unit 2172  
September 5, 2004

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Cefl CA